



## Epidemiologic Notes & Reports

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**November is  
AMERICAN  
DIABETES MONTH**



### **Diabetes Prevalence is Increasing**

Tracey Miller, MPH

The prevalence of diabetes is increasing in Kentucky as well as in the United States (U.S.). Data from the 1997-1999 Kentucky Behavioral Risk Factor Surveillance System indicate prevalence has increased from 5.0% in 1996-1998 to 6.1%, with approximately 178,651 adults in Kentucky reporting having diagnosed diabetes. In addition, approximately 89,325 individuals had undiagnosed diabetes resulting in a total of 267,976 diagnosed and undiagnosed cases. This increase in prevalence places Kentucky 8<sup>th</sup> in the U.S. in terms of diagnosed diabetes prevalence. In 1998, approximately one-half of Kentucky's adult population was at increased risk of undiagnosed diabetes because of the risk factors of age, obesity, and sedentary lifestyle.

Women are at a slightly greater risk of being diagnosed with diabetes than men. 6.2% of adult women have diagnosed diabetes compared to 5.9% of adult men. A substantial difference in prevalence exists between African Americans and Caucasian Americans (Whites) as well. 8.5% of African Americans in Kentucky have diagnosed diabetes compared to only 5.9% of Whites, giving African Americans a prevalence rate 1.4 times that of Whites. The Appalachian region of the state contains the highest prevalence of diabetes with 7.3% of residents in Appalachia reporting they have the disease. Senior citizens in Kentucky suffer from diabetes more than any other age group with 15% of that population having the disease

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compared to a prevalence of 13% among 55-64 year olds, and 6% among those aged 45-54.

Increases in prevalence have been observed in most of the U.S. A recent study\* indicated that the prevalence of diabetes increased from 4.9% in 1990 to 6.5% in 1998, resulting in a 33% increase in prevalence. An increase was observed in all but five states in the U.S., and although diabetes prevalence increased in Kentucky, the increase was not as dramatic as exhibited in most of the other states. The same study revealed that adult women in the US had a higher prevalence of the disease than adult men, with 9.0% of women having the disease and only 7.8% of men. Individuals aged 30-39 in the U.S. had a 76% increase in diabetes resulting in the highest increase in prevalence among the age groups. The overall increase in prevalence was observed across all age groups, races, educational levels, levels of smoking status, and weight levels in nearly all states. Obesity tends to play a key role with the rising prevalence of diabetes and with the dramatic increase in the prevalence of obesity in the U.S., the prevalence of diabetes will more than likely continue to increase in the future.

\* A.H. Markad, et. al. "Diabetes Trends in the U.S.: 1990-1998"; *Diabetes Care* Vol. 23, No. 9, P. 1278-1283; September 2000

**Vaccines can be a Life Preserver for  
People with Diabetes**  
Reita Jones, BSN, RN

The influenza (flu) season is upon us and for individuals with diabetes getting the flu can mean an increased risk of complications. It can mean being sick longer, going to the hospital, or even dying. People with diabetes are about three times more likely to die with flu or pneumonia than are people without diabetes. During influenza epidemics, individuals with diabetes are six times more likely to be hospitalized than people without diabetes, and their death rates are increased 5 to 15 percent. This risk is particularly high when additional risk factors such as cardiovascular and renal disease are present. There were 4,070 hospitalizations due to pneumonia and influenza among those with diabetes in Kentucky during 1998.

Pneumococcal vaccination and an annual influenza vaccination can help prevent complications and death associated with pneumonia and the flu. Yet in the U.S. and in Kentucky, only 57% of adults with diabetes reported getting an annual flu shot and only one third reported being immunized against pneumococcal pneumonia. Contributing to the problem is the fact that pneumococcal disease has become more resistant to penicillin and other drugs, making treatment more difficult.

Figure 1 shows reported immunization status among Kentucky adults with diabetes in 1995, 1997, and 1999.

The Centers for Disease Control and Prevention

(CDC) is again launching a national awareness campaign to encourage people with diabetes to get an annual flu shot before or early in the season and to talk to their doctor about getting a pneumococcal vaccine. The release of the campaign has been later this year due to a delay and potential shortage in flu vaccine. The national Advisory Committee on Immunization Practices has announced recently that the shortage has been averted by the resolution of manufacturing problems and improved yields of the influenza A (H3N2) vaccine. However, distribution of the vaccine has been and will be later in the season than usual. It is recommended that individuals with diabetes be vaccinated as early in the season as possible. In addition, providers should continue to administer influenza vaccine to unvaccinated high-risk persons after mid-November and throughout the flu season as vaccine is available.

Health care providers can help by including these important preventive measures as part of their regular diabetes management program. Providers are encouraged to:

- ◆ Recommend flu and pneumonia shots to patients with diabetes when they come for routine care.
- ◆ Consider instituting standing orders to make immunization a routine part of the health care regimen for patients with diabetes
- ◆ Educate patients about how simple, safe and effective the immunizations are, and how dangerous the flu and pneumonia are for people with diabetes.

**Figure 1. Immunizations among Kentuckians with Diabetes, BRFSS 1995, 1997, & 1999**

	State			Caucasian Americans			African Americans			65+ Population			Appalachia		
	'95	'97	'99	'95	'97	'99	'95	'97	'99	'95	'97	'99	'95	'97	'99
Receiving a flu vaccination within the past 12 months	54%	52%	57%	53%	52%	57%	62%	49%	60%	59%	77%	73%	46%	50%	49%
Ever having a pneumonia vaccination	25%	33%	35%	27%	33%	37%	12%	24%	17%	29%	49%	54%	25%	28%	31%

Data Source: 1995, 1997, & 1999 Kentucky Behavioral Risk Factor Surveillance Survey, Centers for Disease Control and Prevention

### Vaccines can be a Life Preserver for People with Diabetes (continued)

The Diabetes Control Program of the Kentucky Department for Public Health is a participating partner in the CDC flu campaign. For more information, or to obtain free brochures or patient reminder postcards, contact Theresa Renn at (502) 564-7996. According to Dr. Frank Vinicor, director of the Division of Diabetes Translation at the CDC, "Flu and pneumonia shots are easy, safe, preventive measures that people with diabetes can take to protect themselves from the risks associated with flu and pneumonia." Providers should encourage their patients to take advantage of these simple preventive measures. It could be a life preserver for people with diabetes!



### State Injury Prevention Program

Carl Spurlock, PhD  
Robert McCool, MS

The Department for Public Health, through the Division of Epidemiology and Health Planning, has created a State Injury Prevention Program (SIPP) that is contractually located in the Kentucky Injury Prevention and Research Center (KIPRC), University of Kentucky School of Public Health. SIPP has two major objectives. One is to maintain a state-of-the-art, population-based, public health injury surveillance system that collects and analyzes all general injury data from several sources, plus conduct detailed surveillance of specific types of injury. The second objective is to operate a community-based injury prevention program that focuses on the major causes of injury among Kentuckians and the regions of the Commonwealth where the injury problems are most prevalent.

### Injury Surveillance Section

The Injury Surveillance Section is responsible for collecting, analyzing, and disseminating injury data. Specific responsibilities include:

1) General injury case identification from vital statistics death certificates and hospital discharge records.

2) Crash Outcome Data Evaluation System (CODES) Project Funded by the National Highway Traffic Safety Administration, Federal Department of Transportation, the CODES Project provides an important component of the Injury Surveillance division. The CODES mission is to computer link, using probabilistic data linking software, police crash reports with medical data.

3) Intimate Partner Violence Surveillance Project (IPVS) is Funded by the National Center for Injury Prevention and Control, Centers for Disease Control and Prevention (CDC) and began in October 1999. The main objective of the IPVS project is to establish a statewide surveillance system to monitor the incidence and prevalence of IPV in Kentucky.

4) Traumatic Brain Injury/Spinal Cord Injury (TBI/SCI) Surveillance Project is funded by the Kentucky TBI Trust Fund Advisory Board. A full-time contract has been given to the SIPP to do statewide TBI/SCI surveillance during Fiscal Year 2001.

### Community Injury Prevention Section

The Community Injury Prevention Program (CIPP) is dedicated to the provision of injury prevention programs at the community level. Currently, services are provided to 60 of Kentucky's 120 counties from the main office in Lexington and three regional offices that are located in Hazard, Morehead, and Somerset.

Using data generated by other programs at KIPRC and by other governmental agencies, the CIPP has identified the types of injuries that are most prevalent in Kentucky. Based upon this

## State Injury Prevention Program (continued)

information, and the resources available to address the problem, the CIPP currently concentrates on two broad areas of injury prevention. These areas are motor vehicle crash reduction and traffic safety, with a particular emphasis on child passenger safety, and residential fire injury prevention.



### 1) Residential Fire Injury Prevention Project

The goals of this 3-year project are to provide fire safety education and install smoke alarms in homes that do not currently have functional smoke alarms. This project has brought together Federal, state and local governments, volunteer agencies and organizations, private industry and advocacy groups in an effort to improve fire safety in rural Kentucky.

The primary portion of this project is funded through a cooperative agreement with the National Center for Injury Prevention and Control, CDC. This portion of the project provides fire safety education and smoke alarms for installation in three Kentucky counties each year for the 3-year project period. The project is currently in its second year, with Johnson, Pike, and Russell counties participating.

CIPP regional coordinators work with local health departments to enroll households that do not have a smoke alarm in the project. Local volunteers, principally firefighters, then install one or more lithium battery-powered 10-year smoke alarms in the home, and provide fire safety education to the residents. Additional fire safety awareness and education activities are conducted at the

community level. It is expected that approximately 5,200 smoke alarms will be installed by this project.

### 2) Alternative Sentencing Project

This program was designed to offer a constructive alternative to fines for first-time violators of Kentucky's child passenger restraint law. First-time violators are sentenced to a mandatory 3-4 hour education program in lieu of a monetary fine. Violators receive education in why child safety restraints are critical to protect children riding in motor vehicles, as well as training in how to properly use a child safety restraint. Those violators who do not already have a child restraint are given one as part of the training program.

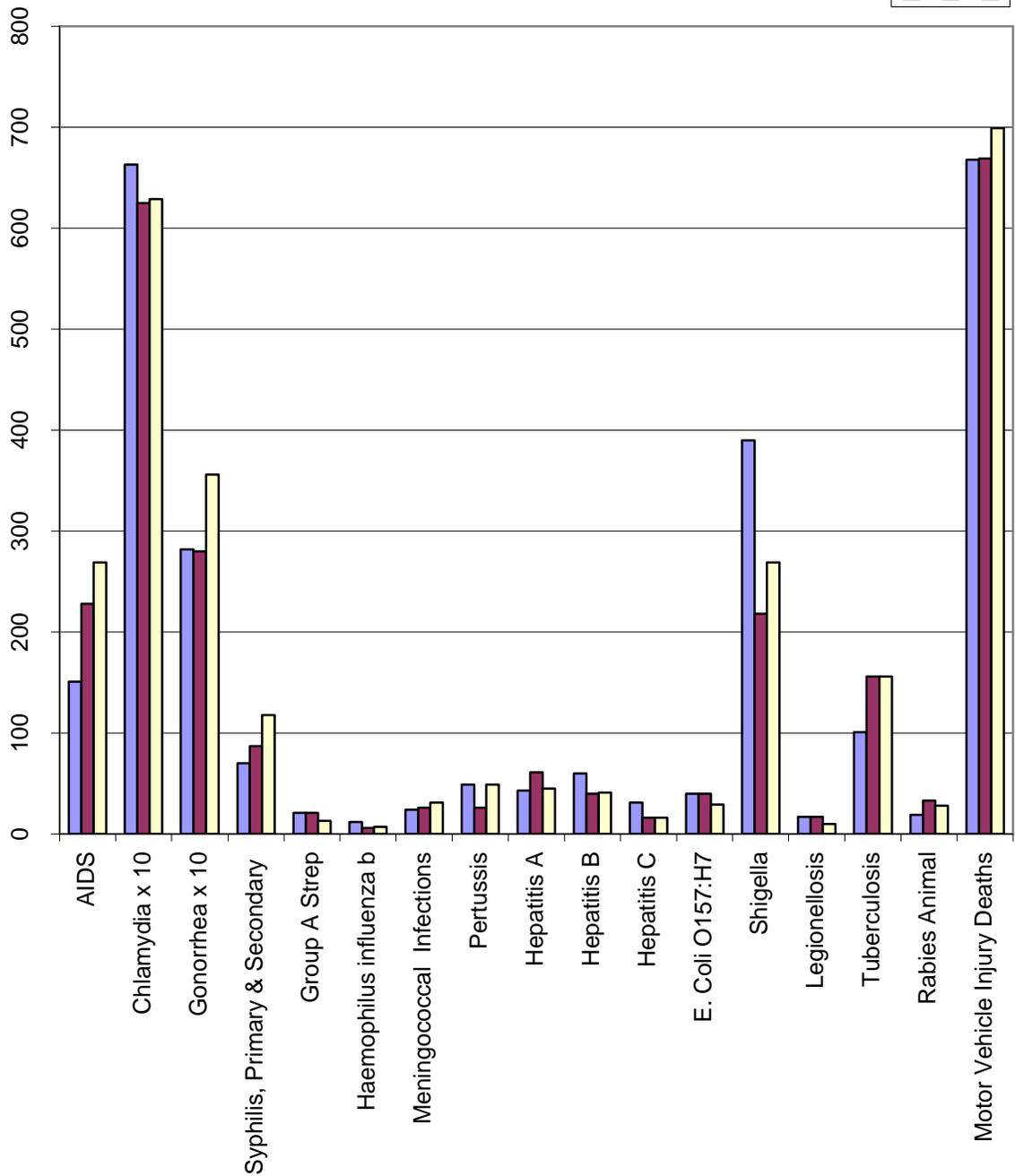
This program was pilot tested in two counties during 1998-1999 and has been expanded to 6 other jurisdictions during Fiscal Year 2000. It has been well received by local law enforcement officials, prosecutors and judges, as well as by child passenger safety advocates. Current data indicate a low recidivism rate among violators.

For information about SIPP or questions about safety call: Robert McCool, MS, Manager, Community Injury Prevention Program at (859) 257-6741.

**Injuries are not accidents!  
They can be prevented.**



**CASES OF SELECTED DISEASES IN KENTUCKY, YEAR TO DATE (YTD) THROUGH OCTOBER 2000**



Diseases Of Low Frequency Occurrence	2000 YTD	1999 Annual Totals
Diphtheria	0	0
Measles	0	2
Mumps	1	0
Polio	0	0
Rubella	1	0
Tetanus	1	0

VECTOR-BORNE DISEASES		
Arboviral encephalitis	0	1 LAC
Lyme Disease	11	19
Malaria	17	7
Rocky Mountain spotted fever	3	3
Tularemia	3	3

■ Cumulative Totals 2000  
■ Cumulative Totals 1999  
■ Cumulative Totals 5-year median



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## Late-stage Breast Cancer Among African American Women Drops 38 Percent

Having regular mammograms and clinical breast exams to find breast cancer early can save your life. African-American women in Kentucky apparently are listening to this message: Late-stage breast cancer decreased 38 percent among African-American women from 1991 to 1998, according to the Kentucky Cancer Registry. For all Kentucky women, the proportion of breast cancer cases diagnosed at a late stage changed very little during that time.

As with many types of cancer, finding the disease early has a significant positive impact on treatment options and survival. Kentucky Cancer Registry breast cancer incidence data from 1991-1998 show that about one-third of all cases are diagnosed at a late stage.

The National Cancer Institute recommends that women in their 40s and older have a mammogram every one to two years.

“Studies show that having regular screening mammograms reduces breast cancer deaths among women between the ages of 50 and 69 by about 30 percent,” said Stephen W. Wyatt, DMD, MPH, associate director for cancer control at the University of Kentucky’s Markey Cancer Center, “For women in their 40s, having regular mammograms reduces the chances of dying from breast cancer by about 17 percent.”